

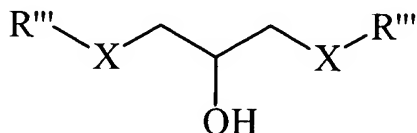
**Amendments to the Specification:**

Please replace the paragraph beginning on page 12, line 3, with the following amended paragraph:

The presence of this compound in small quantities in the product is not detrimental and may in fact be beneficial since it possesses structural features similar to the ~~hydroxyl-substituted~~ hydroxy-substituted dithiocarbamates. The presence of this compound can be eliminated by purification of the intermediate epoxide.

Please replace the paragraph beginning on page 12, line 7, with the following amended paragraph:

A small amount of epichlorohydrin in the first step may react with two equivalence of mercaptan or alcohol to form a product of the type shown below where R''' is as defined above and



X=O (for alcohol reactants) or S (for mercaptan reactants). The presence of this compound in small quantities in the product is not detrimental and may in fact be beneficial since it possesses structural features similar to the alkylthio and ~~hydroxyl-substituted~~ hydroxy-substituted dithiocarbamates. The presence of this compound can be eliminated by purification of the intermediate epoxide.

Please replace the paragraph beginning on page 19, line 9, with the following amended paragraph:

Using procedures analogous to that described in Example 1 and 2, the following additional ~~hydroxyl-substituted~~ hydroxy-substituted dithiocarbamates were prepared.

Please replace the paragraph beginning on page 29, line 3, with the following amended paragraph:

A variety of ~~hydroxyl-substituted~~ hydroxy-substituted dithiocarbamates and sulfur-free organo-molybdenum compounds were blended into an SAE Grade 5W-30 type motor oil as shown in Table 1. These oils contained a typical dispersant inhibitor package and were formulated with a low sulfur and low aromatic hydrocracked and isodewaxed basestock that meets the API Group II category. The oils contained 500 ppm phosphorus derived from secondary zinc dialkyldithiophosphate (ZDDP), HiTEC® 7169, available from Ethyl Corporation. Molyvan® 855, a sulfur-free organo-molybdenum compound derived from an organic amide, was obtained from the R. T. Vanderbilt Company. For comparison, a commercial sulfurized olefin antioxidant (SO), HiTEC® 7084, available from Ethyl Corporation, was included in the study. All additive treat rates for the dithiocarbamates and sulfurized olefin were based on delivering equal sulfur to the finished motor oil (750 ppm, 1500 ppm, and 2250 ppm sulfur respectively as indicated in Table 1). Therefore, the higher the sulfur content of the additive, the lower the additive treat rate to the finished oil. It is desirable to have low additive treat rates. The antiwear properties of the blended motor oils were determined using the Four Ball Wear Test as defined in ASTM D-4172. This test is conducted in a device comprising four steel balls, three of which are in contact with each other in one plane in a fixed triangular position immersed in a reservoir containing the test oil. The fourth ball is above and in contact with the other three. In conducting the test, the upper ball is rotated while it is pressed against

the other three balls while pressure is applied by weight and lever arms. The diameter of the scar on the three lower balls is measured by means of a low-power microscope, and the average diameter measured in two directions on each of the three lower balls is taken as a measure of the antiwear characteristics of the oil. A larger scar diameter means more wear. The balls were immersed in the blended motor oils that were previously treated with 1.0 wt. % of cumene hydroperoxide being added to promote wear. Applied load was 40 kg and rotation was at 1200 rpm for 60 minutes at 75°C. Test results are reported in Table 1. Oil sample 1 contained 0.6 wt. % HiTEC® 7169 as the only antiwear additive which delivered approximately 500 ppm phosphorus and 1000 ppm sulfur to the finished motor oil. Oil samples 2 and 3 contained 0.6 wt. % HiTEC® 7169 and 0.40 wt. % of molybdenum containing additives that delivered approximately 320 ppm molybdenum to the finished motor oil. Oil samples 4, 5, 6, 13, 14, 15, 22, 23, 24, 31, 32, 33, 40, 41, and 42 contained 0.6 wt. % HiTEC® 7169 and the hydroxy-substituted dithiocarbamates or sulfurized olefins. Oil samples 7, 8, 9, 10, 11, 12, 16, 17, 18, 19, 20, 21, 25, 26, 27, 28, 29, 30, 43, 44, and 45 contained 0.6 wt. % HiTEC® 7169, 0.40 wt. % of the molybdenum containing additives, and the hydroxy-substituted dithiocarbamates or sulfurized olefins.

Please replace the paragraph beginning on page 32, line 4, with the following amended paragraph:

A variety of ~~hydroxyl-substituted~~ hydroxy-substituted dithiocarbamates and a sulfur-free organo-molybdenum compound were blended into an SAE Grade 5W-30 type motor oil as shown in Table 2. These oils contained a typical dispersant inhibitor package and were formulated with a low sulfur and low aromatic hydrocracked and isodewaxed basestock that meets the API Group II category. The oils contained 500 ppm phosphorus derived from secondary zinc dialkyldithiophosphate (ZDDP), HiTEC®7169, available from Ethyl Corporation. Molyvan® 855, a sulfur-free organo-molybdenum compound derived from an organic amide,

was obtained from the R. T. Vanderbilt Company. For comparison, a full ZDDP passenger car engine oil formulation was included in the study. The full ZDDP formulation contained 1000 ppm phosphorus from the ZDDP and a commercial sulfurized olefin antioxidant (SO), HiTEC® 7084, available from Ethyl Corporation. All additive treat rates for the dithiocarbamates were based on delivering equal sulfur to the finished motor oil (750 ppm, 1500 ppm, and 2250 ppm sulfur respectively as indicated in Table 2). Therefore, the higher the sulfur content of the additive, the lower the additive treat rate to the finished oil. It is desirable to have low additive treat rates. The oxidation stability of these oils was measured by pressurized differential scanning calorimetry (PDSC) as described by J. A. Walker and W. Tsang in "Characterization of Lubrication Oils By Differential Scanning Calorimetry", SAE Technical Paper Series, 801383 (Oct. 20-23, 1980). Oil samples were treated with an iron (III) naphthenate catalyst (55 ppm Fe) and 2.0 milligrams were analyzed in an open aluminum hermetic pan. The DSC cell was pressurized with 400 psi air containing 50-55 ppm NO<sub>2</sub> oxidation catalyst. The instrument was programmed with the following heating sequence: (1) ramp from room temperature to 120°C at 20°C/minute, (2) ramp from 120°C to 150°C at 10°C/minute, (3) ramp from 150°C to 250°C at 2.5°C/minute, (4) iso-track at 250°C for 1 minute. During the temperature ramping sequence an exothermic release of heat was observed. The exothermic release of heat marks the oxidation reaction. The temperature at which the exothermic release of heat is observed is called the oxidation onset temperature and is a measure of the oxidative stability of the oil (i.e. the higher the oxidation onset temperature the greater the oxidative stability of the oil). All oils are evaluated a minimum of 2 times and the results averaged.